

élantec
HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

EL6272C - Product Brief

1-Ch Laser Diode Driver + Oscillator

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Features

- Voltage-controlled output current source (requiring one external set resistor)
- Current-controlled output current source.
- Rise time = 3.0 ns typ.
- Fall time = 3.5 ns typ.
- On-chip oscillator w/frequency and amplitude control by use of external resistors to ground.
- Oscillator to 500 MHz typ.
- Oscillator to 100 mA pk/pk typ.
- Single +5V supply ($\pm 10\%$)
- Current amplification = 100
- TTL/CMOS control signals

Applications

- MO drives
- Mini-Disc drives
- Writable optical drives
- Laser diode current switching

Ordering Information

Part No	Temp. Range	Package	Outline #
EL6272CY	0°C to +70°C	MSOP10	MDP0043

General Description

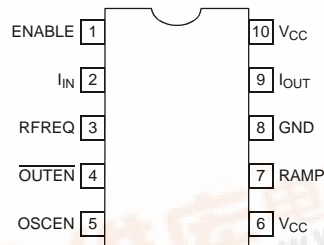
The EL6272C is a single channel laser diode current amplifier that provides controlled current to a grounded laser diode. The amplifier can provide up to 200 mA of DC or pulsed current with switching speeds of approximately three nanoseconds rise/fall time. The level of the output current is set by an analog voltage applied to an external resistor which converts the voltage into a current at the I_{IN} pin (virtually ground). The current seen at this pin is then amplified by 100X to become a current source at pin I_{OUT} .

An on-chip 500 MHz oscillator is provided to allow current modulation when in read mode. This is turned on when the OSCEN pin is held high. Complete control of amplitude and frequency is set by two external resistors connected to ground at pins RFREQ and RAMP (see graphs in this data sheet for further explanation).

Output write current pulses are enabled when an 'L' signal is applied to the \overline{OUTEN} pin.

The external resistor allows the user to accurately and independently set the amplifier transconductance by applying a voltage to the set resistor, without restriction on the voltage range, thus ensuring broad voltage DAC compatibility. Alternatively, the I_{IN} pin can be biased from a current DAC or other current source.

Connection Diagram



Complete Product Specifications Elantec Technical Support:

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General Disclaimer

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